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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/445,278	06/25/2001	Peter Boutsalis	PB/5-30021/A	9741

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EXAMINER	
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ART UNIT	PAPER NUMBER

1661  
DATE MAILED: 09/27/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. <b>09/445,278</b>	Applicant(s) <b>Peter Boutsalis</b>
	Examiner <b>Anne Marie Grunberg</b>	Art Unit <b>1661</b>
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>		
<b>Period for Reply</b>		
<p>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>three</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.</p> <ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>		
<b>Status</b>		
1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>Jun 25, 2001</u>		
2a) <input type="checkbox"/> This action is FINAL.      2b) <input checked="" type="checkbox"/> This action is non-final.		
3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11; 453 O.G. 213.		
<b>Disposition of Claims</b>		
4) <input checked="" type="checkbox"/> Claim(s) <u>1-21</u> is/are pending in the application.		
4a) Of the above, claim(s) _____ is/are withdrawn from consideration.		
5) <input type="checkbox"/> Claim(s) _____ is/are allowed.		
6) <input checked="" type="checkbox"/> Claim(s) <u>1-4, 6, 8-11, 13, and 14</u> is/are rejected.		
7) <input checked="" type="checkbox"/> Claim(s) <u>5, 7, 12, and 15-21</u> is/are objected to.		
8) <input type="checkbox"/> Claims _____ are subject to restriction and/or election requirement.		
<b>Application Papers</b>		
9) <input type="checkbox"/> The specification is objected to by the Examiner.		
10) <input type="checkbox"/> The drawing(s) filed on _____ is/are a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).		
11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.		
12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.		
<b>Priority under 35 U.S.C. §§ 119 and 120</b>		
13) <input checked="" type="checkbox"/> Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).		
a) <input type="checkbox"/> All b) <input checked="" type="checkbox"/> Some* c) <input type="checkbox"/> None of: 1. <input type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. 3. <input checked="" type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).		
*See the attached detailed Office action for a list of the certified copies not received.		
14) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e). a) <input type="checkbox"/> The translation of the foreign language provisional application has been received.		
15) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.		
<b>Attachment(s)</b>		
1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)		
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)		
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). <u>2,5,7</u>		
4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____		
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)		
6) <input type="checkbox"/> Other: _____		

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### **DETAILED ACTION**

The Group and/or Art Unit location or your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1661.

It appears that there is a spelling error in claim 2 (c) where “plan” should be spelled -- plant--. The “t” after the period appears to be another spelling error. Applicant should correct this in the next correspondence with the office.

Claims 5, 7, 12, and 15-21 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. Alternatively, the claims are dependent on claims that are improper multiple dependent claims, or are dependent on other multiple dependent claims. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

If claims 20-21 are amended care should be taken that the claims are directed to statutory subject matter (see MPEP 706.03(a)).

Claims 1-4, 6, 8-11, and 13-14 have been examined on their merits.

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***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119 (a)-(d). The certified copy of the British Application No. 9802250.2, filed on 3/02/1998 has been received.
2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 4/6/1997. It is noted, however, that applicant has not filed a certified copy of the German application as required by 35 U.S.C. 119(b).

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-3, 6, 8-11, and 13-14 and dependent claim 4, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, there are no steps that complete the preamble of the claim. Specifically, there is no testing step specified. “Testing” does not equal “monitoring”. Additionally it is unclear as to what the progeny plants are to be tested for. Periods may not be used elsewhere in the claims

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except for abbreviations and the end (MPEP 608.01(m)), so the period at the end of step (a) needs to be deleted. It is further confusing in that the plural of plant is also recited in step (a) but in the other steps, only the singular is referred to. Steps (a) and (b) are also unclear as to whether they are propagating the mother plant and getting progeny as is suggested in (b), or whether they are propagating the progeny plants as is suggested in (a). Additionally in step (a) it is unclear if it is the mother plant or the progeny plant that doesn't pass through a callus phase or cell or protoplast culture. For further examination purposes, it was assumed that the progeny did not pass through a callus phase or cell or protoplast culture.

In claims 2, 8, 10-11, and 14, it is unclear, nor is it defined in the specification what constitutes the length of a "short" segment from a mother plant.

In claim 3 it is unclear, nor is it defined in the specification what constitutes a "high" amount of actively dividing cells.

Claim 6 is unclear in the recitation of "a culture medium" which is not defined in the specification and implies cell or tissue culture. Claim 6 is dependent on claim 2 which prohibits the use of cell or protoplast culture.

Claim 8 recites the limitation "explants" in step (c). There is insufficient antecedent basis for this limitation in the claim. (Depending on how this problem is fixed, there may be a problem with "said explant" in step (d).) Additionally, the period needs to be deleted in step (d). It is further unclear, nor is it defined in the specification, what "concentration(s)" of a solution encompasses in its plural form.

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In claim 9, there is no rescue step that completes the preamble of the claim. As a result, it is unclear how plants are rescued. It is also unclear what comprises a treated mother in claims 9-11. An --a-- should be inserted before “method” at the beginning of claim 9. The period in claim 9, step (a) needs to be deleted as well. Additionally in step (a) it is unclear if it is the mother plant or the progeny plant that doesn’t pass through a callus phase or cell or protoplast culture. For further examination purposes, it was assumed that the progeny did not pass through a callus phase or cell or protoplast culture. Steps (a) and (b) are also unclear as to whether they are propagating the mother plant and getting progeny as is suggested in (b), or whether they are propagating the progeny plants as is suggested in (a). It is further confusing in that the plural of “plant” is also recited in step (a) but in the other steps, only the singular is referred to.

An --a-- should be inserted before “method” at the beginning of claims 10-11 and 13-14 as well.

In claim 11 it is unclear, nor is it defined in the specification, what “concentration(s)” of a solution encompasses in its plural form. There is no antecedent basis for “so treated plant explants” in step (c). The period at the end of step (d) needs to be deleted.

In claims 13-14, step (a), there is no antecedent basis for “the phenotypically resistant plant”. Additionally, it is unclear what “other factors” means in claim 13. There is also no determination step that completes the preamble of claim 13. It is further confusing in that the plural of “plant” is also recited in step (a) but in the other steps, only the singular is referred to.

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In claim 14 step (d), there is no antecedent basis for “explants”. (Depending on how this problem is fixed, “explant” in step (e) may have to be changed as well.) It is unclear, nor is it defined in the specification, what “concentration(s)” of a solution encompasses in its plural form.

These problems need to be addressed so that the claims can be clearly understood and the metes and bounds of the claims can be clearly determined.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 6, 9-10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Fehr.

The claims are drawn to a method of testing, rescuing, or determining resistance of progeny plants wherein plants are asexually propagated from a mother plant wherein the progeny do not pass through a callus phase or cell or protoplast culture. The progeny plants are incorporated into a plant screening program and further monitored. The claims are further drawn

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to a method wherein the propagation step is accomplished by cutting a regenerable section of the mother plant, transferring the section to a suitable anchorage material such as soil or an inert material and regenerating the section into a normal plant without passing through a callus phase or cell or protoplast culture. The section comprises meristematic cells that contains a high amount of actively dividing cells.

Fehr teaches development of asexually propagated cultivars wherein progeny plants are asexually propagated from a mother plant and do not pass through a callus phase or cell or protoplast culture (page 381, first sentence). The progeny plants are incorporated into a plant screening program (page 385, second sentence). The growth of the progeny plant is monitored (page 385, last paragraph; first sentence on page 387, for example). Fehr further teaches a method wherein the propagation step is accomplished by cutting a short segment from the mother plant that is capable of regenerating into a morphologically whole and normal plant (page 386, lines 15-20, for example). The segment was transferred to a suitable anchorage material - soil, evidenced in that the tubers (segments of the mother plant) were planted in the field (page 386, lines 15-20, for example). The segments were regenerated into whole and morphologically normal plants without passing through a callus phase or cell or protoplast culture (page 386, lines 15-20, for example). The segment comprised a region with a high amount of actively dividing meristematic cells as was evidenced in that the tubers grew into plants and as is well known in the art that potato tuber "eyes" have meristematic tissue and hence can regenerate into plants.

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7. Claims 1-4, 6, 8-11, and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by J A Samson.

The claims are drawn to the subject material described above with the addition of the following. A short segment is cut from the mother plant and dipped or sprayed into or with a known concentration of a pesticide-containing solution.

Samson teaches that it is well known in the art that plants are asexually propagated from a mother plant wherein the progeny do not pass through a callus phase or cell or protoplast culture (page 37, fifth paragraph and last paragraph, all of page 38; page 148, page 162, for example). The progeny plants are incorporated into a plant screening program and further monitored (last line on page 37; page 46, third full paragraph; page 57, third paragraph; page 82, for example). The claims are further drawn to a method wherein the propagation step is accomplished by cutting a regenerable section of the mother plant, transferring the section to a suitable anchorage material such as soil and regenerating the section into a normal plant without passing through a callus phase or cell or protoplast culture (page 107, first sentence under 'Propagation'; page 109, paragraphs 4 and 5; page 111-113; page 162, for example). It is well known in the art that budwood and other propagatable material such as suckers or corms, comprises meristematic cells that are in the process of actively dividing. At pages 162 and 163, disinfection of propagatable material is described. Corms, cut from the mother plant are sprayed with a known concentration of pesticide at page 178, second full paragraph. On page 179, suckers cut from the mother plant

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are dipped into a known concentration of pesticide. At page 57, different control measures are also described.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 8, 11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fehr in view of Benson.

Claims 8, 11, and 14 are drawn to a method for testing progeny plants wherein the progeny plants are asexually propagated from the mother plant without passing through a callus phase or involving cell or protoplast culture by cutting a short segment from the mother plant that is dipped into or sprayed with a known concentration of pesticide containing solution after which the segments are transferred to a suitable anchorage material and regenerated and finally incorporating the progeny into a plant screening program where they are subsequently monitored.

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Fehr has been discussed *supra* regarding the claims from which claims 8, 11, and 14 are dependent. The only additional limitation in claims 8, 11, and 14 not found in the previous claims is the dipping or spraying of the short segment into a known concentration of a pesticide containing solution.

Fehr does not teach a short segment that is cut from the mother plant and dipped or sprayed into or with a known concentration of a pesticide-containing solution.

Benson teaches poinsettia cuttings sprayed with various fungicides of known concentration (page 395, column 1, paragraphs 3 and 4).

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to use the method of testing, rescuing, or determining resistance traits as taught by Fehr and to modify that method by spraying or dipping a plant cutting or segment into a known concentration of pesticide as taught by Benson given the benefits of using a pesticide during propagation as described on page 396, column 1, second paragraph, for example. Even though the examples given by Fehr do not specifically relate to a poinsettia plant as described by Benson, the principles taught by Fehr are broadly applicable to all asexually propagated plants (page 381).

### ***Summary***

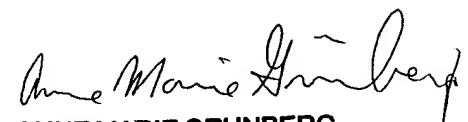
No claim is allowed.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne Marie Grünberg whose telephone number is (703) 305-0805. The examiner can normally be reached from Monday through Thursday from 7:30 until 5:00, and every other Friday from 7:30 until 4:00.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Bruce Campell, can be reached at (703) 308-4205. The fax number for the unit is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.



ANNE MARIE GRUNBERG  
PATENT EXAMINER